Session 5 – Building a Business Like a Scientist Transcript

"Have you ever heard of WebVan – an online grocer that was founded in 1999 by some really smart people and funded by some of the most successful venture investors on the planet? It raised more than ½ a billion dollars in invested capital, hit an employee peak of about 4500 people, and was liquidated – all in less than 2 years. By so doing, the company provided a great case study in the pitfalls of failing to test your ideas for a new business and just assuming that you're right. Webvan assumed that enough people wanted online ordering and home delivery of groceries to make their network of futuristic and very expensive warehouses profitable, but they were forced into bankruptcy when demand fell way short of their expectations."

"Unfortunately the story of WebVan is not unique. Countless entrepreneurs have suffered the same fate – albeit on a much less epic scale - because they failed to consider the possibility that their ideas about their businesses might be wrong."

"In this video we are going to talk about building a business like a scientist to avoid falling victim to untested ideas and assumptions."

"The first step toward building a business like a scientist is to understand that a startup business is a temporary organization setup to search for a viable business model. Startups are temporary because most initial ideas for new businesses will fail to pan out. Therefore, it's important to remain flexible and open to going to where the search process leads you."

The second step toward building a business like a scientist is to embrace evidence-based decision making. When scientists are trying to figure out how something works or why something happens they formulate possible explanations called hypotheses and then gather data to test their ideas. Building a business like a scientist involves a similar process.

At this point, you probably have ideas or hypotheses about something you can sell, the people who would buy it, and the selling process. Recognize - these ideas are untested. No matter how passionate you are about them or how strongly you believe them to be true, evidence needs to be gathered to really know for sure. Building a business like a scientist involves repeatedly translating your ideas into falsifiable hypotheses, designing tests and gathering evidence until you have validated a viable model for creating, delivering and capturing value from customers.

> Aksel Gungor – "Starting a business is very open ended because it can go into anything, it can become anything, whatever you're building. And so it's really important to stay focused and approach it in a certain method. So whether it's a scientific approach or whatever you want to call it, it's really good to set up these assumptions, set up these tests like a scientist and prove them. Or go about to try and prove them or disprove those tests. So you can approach every facet, every part of the business in this manner, whether it's, "how is the business going to make money?" or "how are we going to do

marketing and get customers to come to the restaurant?" You can sort of test all these things like a scientist and figure out, "ok, well this is working, this isn't working," and if you find something that is working, you just keep doing it over and over and over again."

Using the scientific approach of translating your ideas into falsifiable hypotheses, building appropriate tests for your ideas, measuring the outcome of the tests, and using what you learn to validate or revise your ideas, systematically reduces risk and increases your chances for success. When you follow this build-measure-learn approach it's okay to be wrong because you can learn quickly while expending relatively few resources."

"To give a specific example of the build, measure, and learn process, let's consider an idea that some University of Delaware students were pursuing. They thought that many high school students and parents are dissatisfied with the technology education they receive in school and that their solution of offering supplemental classes during the summer would make a good business.

Following the build-measure-learn approach, they decided to test their idea by developing and distributing a flyer describing the classes they planned to offer and then measuring interest by seeing how many students signed up. This allowed them to learn whether their solution was desirable without having to invest a lot of time and money actually developing the curriculum, hiring teachers, and producing materials for the classes.

As it turned out, their test was successful even though it showed that their business would not be. No one signed up for the classes, providing a clear and strong signal that their targeted customers were not interested in their product.

The build-measure-learn, or evidence-based approach to entrepreneurship is associated with a few useful mantras for entrepreneurs.
- Evidence over intuition.
- Fail fast and cheap, and
- Raise customers first.

Evidence over intuition simply means that making decisions based on data and facts tends to produce better outcomes than making decisions based purely on guesses and hunches.

Fail fast and cheap simply means that if an idea for a new business is not viable, then it's best to discover this fact as quickly and inexpensively as possible. That way you can preserve your most valuable resource – your time - and move on to your next idea.

And raising customers first highlights the true path to entrepreneurial success – delighting customers. Although Sharktank and other television shows have done a lot of good in shining a spotlight entrepreneurship, they tend to place an unhealthy emphasis on the need to raise money from investors to realize entrepreneurial success. For many reasons, money from customers is a much better source of capital.

The evidence-based approach to entrepreneurship is also associated with three useful tools: the business model canvas, customer development methodology and agile development.

"We'll talk more about these tools in subsequent video. For now, all you need to know is that they are useful in helping us to execute the build-measure-learn process so that we can test and validate our ideas BEFORE we start hiring people and spending a lot of money like WEbvan did.

Grace Leong – "I define entrepreneurialism as a mix of art and science. The art comes in and your passion, your ideas, your energy, your drive, your will to succeed. But that's only half of the equation, and I think most entrepreneurs will fail if they just rely on that. You have to add that science into it as well. And being an entrepreneur for 25 years, if I didn't have that science background, that learning, that understanding, that mentorship, all that stuff that, "oh I don't need to do that, that's just textbook stuff," you actually do."

"David Kelley, founder of the world renowned design and innovation consulting firm IDEO, argues for the importance of building a prototype as fast as you can and getting it into the hands of real customers to gauge their reaction. Kelley's design-thinking-based perspective is consistent with build-measure-learn approach and is reflected in IDEO's motto – enlightened trial and error succeeds over the planning of lone genius."

"Building a business like a scientist is also something that this quote from Mark Twain would seem to support - It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so."